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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,572	10/23/2006	Eric Maziers	F-872 (31223.00098)	1582
25264	7590	11/13/2009	EXAMINER	
FINA TECHNOLOGY INC PO BOX 674412 HOUSTON, TX 77267-4412				LOPEZ, RICARDO E.
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
11/13/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/553,572	MAZIERS ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	RICARDO E. LOPEZ	1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 9-27 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 9-15 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) 9-27 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/20/2008</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____ .                        |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claims 9 - 15, drawn to monofilaments or stretched tapes prepared from a metallocene-produced polyethylene resin having long chain branches.

Group 2, claims 16 - 27, drawn to a process for preparing stretched tapes of the said metallocene produced polyethylene resin.

The inventions listed as Groups I and II, do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Unity of invention is present a priori since there are common technical features to the two Groups of inventions, such as the use of metallocene produced polyethylene resin having long chain branches. However, Brandt et al. US Patent No 5,844,055 teaches a method for making high molecular weight copolymers of ethylene and branched α-olefins with a cyclopentadienyl metallocene catalyst system; it also teaches films, fibers and other products made from the copolymers (Abstract). Thus, the corresponding technical features are not the inventors own contribution to the art.

Therefore, there is no special corresponding technical feature or unity of invention between the claimed Groups. Restriction is appropriate.

3      Applicant is advised that the reply to this requirement to be completed must include(i) an election to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

4.      The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

5.      If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

6.      Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the

evidence of admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

8. During a telephone conversation with Tenley Krueger on November 04, 2009 a provisional election was made without traverse to prosecute the invention of Group I, claims 9 - 15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16 – 27 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

9. In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be

maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 9 and 10 are rejected under 35 U. S. C. 102(b) as being unpatentable over Brandt et al. US Patent No 5,844,055.

13. Considering claims 9 and 10, Brandt et al., teaches a method for making high molecular weight copolymers of ethylene and branched  $\alpha$ -olefins with a cyclopentadienyl metallocene catalyst system; it also teaches films, fibers and other products made from the copolymers (Abstract). Furthermore, Brandt et al. teaches in a preferred embodiment the use of tetrahydroindenyl as the unsaturated polycyclic cyclopentadienyl ligand in the metallocene catalyst system (Col.4, lines 35-40), thus anticipating all the limitations in the instant claims.

***Claim Rejections - 35 USC § 102/103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 11 - 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brandt et al. US Patent No 5,844,055.

16. Considering claims 11 -15, Brandt et al. teaches that for structural film applications, the copolymers preferably have a density from about 0.88 to about 0.93 g/cm<sup>3</sup>, considered to be a medium density range, these films have high strength and a high Young's modulus, but have exceptionally high toughness (Col. 9, lines 1-2) . Brandt et al. also teaches that the metallocene polyethylene films are produced by any one of a number of well known extrusion or coextrusion techniques. As preferred examples, any of the blown or chill roll cast process known in the art, with or without axial or biaxial orientation obtained by mechanical working the film , as by stretching, drawing, extrusion or the like, can be used (Col. 9, line1 and lines, 29-34). Brandt et al.'s films can be used in stretch/cling films or made into other forms, such as tape, by any one of a number of well known cutting, slitting and/or rewinding operations (Col. 9, lines 36-39). The limitations in the instant claims are product by process limitation and they are not given patentable weight absent evidence that the product-by-process limitation structurally or compositionally distinguishes the claimed article over the prior art. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”; (*In re Thorpe*, 227 USPQ 964,966).

***Claim Rejections - 35 USC § 103***

17. Claims 11 - 15 are rejected under 35 U.S.C. 103(a) as obvious over Brandt et al. US Patent No 5,844,055. in view of Loos et al. US-2004/0242103 A1.

18. Considering claims 11 -15, Brandt et al. teaches that for structural film applications, the copolymers preferably have a density from about 0.88 to about 0.93 g/cm<sup>3</sup>, considered to be a medium density range, these films have high strength and a high Young's modulus, but have exceptionally high toughness (Col. 9, lines 1-2) . Brandt et al. also teaches that the metallocene polyethylene films are produced by any one of a number of well known extrusion or coextrusion techniques. As preferred examples, any of the blown or chill roll cast process known in the art, with or without axial or biaxial orientation obtained by mechanical working the film , as by stretching, drawing, extrusion or the like, can be used (Col. 9, line1 and lines, 29-34). Brandt et al.'s films can be used in stretch/cling films or made into other forms, such as tape, by any one of a number of well known cutting, slitting and/or rewinding operations (Col. 9, lines 36-39). Brandt et al. does not explicitly teach that the tapes go through annealing step.

Loos et al. teaches a monoaxially drawn polyolefin multilayer film, tape or yarn and a manufacturing method for such film, tape or yarn. Loos et al. also discloses that these films are generally produced by blown film or cast film extrusion, and that at some stage of the production process the material can be stretched in order to increase the

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strength and stiffness of the material [Abstract, 0001 and 0002]. Furthermore, Loos et al. teaches that between two stretching steps an annealing step may be included. This can also be done after final stretching [0038]. These materials cab suitably be used for incorporation in a matrix material, for example as reinforcing material [0039].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the annealing step of Loos et al. to the process of Brandt et al. when it is desired to produce metallocene polyethylene reinforcing materials with exceptionally highs toughness.

### ***Conclusion***

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICARDO E. LOPEZ whose telephone number is (571)-270-1150. The examiner can normally be reached on Monday to Thursday 8:00 am-5:30pm EST, and every other Friday from 8:00 am to 4:30 pm..

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571)-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/REL/  
Ricardo E. Lopez  
Patent examiner, Art Unit 1794  
November 06, 2009

/D. Lawrence Tarazano/  
Supervisory Patent Examiner, Art  
Unit 1794